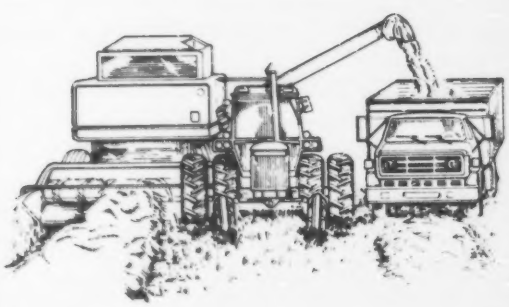
Saskatchewan
Agriculture

Economics
Branch

Farm
Management

SWINE ECONOMICS

Revised 1988



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Introduction

The following material is meant to provide information on the economics of producing hogs for farrow to finish, farrow to weanling and feeder operations.

The production costs shown are composed of two different types of costs - non cash costs and cash costs.

Non cash costs will continue even if production is discontinued. These costs include a depreciation (yearly allowance to recover original start up cost), an interest on investment cost (assets have a value which could be invested elsewhere and earn interest income) and an owner's labour and management allowance.

Cash costs are defined as those costs which are "out-of-pocket" operating expenses which are incurred daily when in production. If production is discontinued the cash cost part of the budget would be discontinued as well.

In the long run, all costs (cash and non-cash) must be recovered for the business to be profitable.

Budget assumptions are made at the beginning of each section. The summary pages are backed up by "Detailed Calculations" to illustrate how the cost estimates were obtained. The total cost of buildings and equipment is documented in "Budgeting Information, Appendix II".

When interpreting these costs for an individual situation, adjustments may be required. Examine the assumptions made and adjust the assumptions if necessary for each situation. Cash costs may be interpreted directly from data, however the actual investment costs and non cash costs will vary from one farm to another.

The management level required in the actual production, scheduling of events, disease control, nutrition and breeding are rather demanding and should be fully evaluated before starting or expanding a hog operation. The budgets in this publication assume a high level of management. Production levels per sow would be 10% to 20% lower for average management practices and average or below average facilities. It is of particular importance to examine the cashflow of the proposed swine operation in addition to the economics. The impact of reduced production or delayed start-up can cause severe cash flow shortages in the initial stages of operation. Cash flow shortages can have significant effects on future long term profitability of the venture.

Appendix I provides detailed information on the rations used in calculating feed costs. Appendix II provides information of buildings and equipment required and costs. Appendix III provides market prices for finished hogs for the past six years.

A. Economics of Swine Production

The economic information contained in this publication is based on recommended practice, assumed production levels and estimated costs. Where feasible, data collected from actual hog producers was used to support the assumptions used in the calculations. The information can be used to establish a budget for individual situations.

The financial summary table provides basic assumptions, profit/loss statement and break even price estimate. The analysis is based on a 100 sow farrow to finish, a 100 sow to farrow weanling operation and a feeder operation. This size of farm unit would require some additional labour beyond what the owner/operator could supply. Although a hired labour cost is used this labour could be supplied by other family members. The labour allowance for operator and hired labourer reflect this labour situation.

Production levels are very important in establishing the economics of developing a swine operation. Management ability will dictate the level of production which will to a large degree dictate the profitability of the venture.

Feed costs were determined using average feed consumption figures at different stages of the production cycle. A standard ration is used in the calculation. Users should determine the feed stuffs they have available and consult a livestock specialist to determine rations required.

Investment in facilities and equipment are based on an estimate of the new cost of these assets. Investment requirements could vary substantially between individuals resulting in different levels of non cash cost estimates.

Profit and Loss Statement

The profit and loss statement shows the economic profit/loss for the 3 types of production. Readers are cautioned that an estimate is made of the average market price for these budgets. Users should determine the appropriate levels or prices at the time of budgeting.

Once the profit/loss statement is complete an estimate of economic profit is known. A business must be profitable to exist, that is, the income produced must cover cash costs of production, a reasonable return for labour, a charge for depreciation and a return on investment. Profit is money which is available for growth and savings. Economic evaluation of profit always assumes 100% equity (no debt).

Break Even Analysis

Break even analysis calculates the break even price required to cover costs for a particular production item. This price level can then be evaluated against expected price levels to determine if the operation will be profitable. The break even price in this case is determined based on an economic evaluation where no debt is considered.

Financial Summary

a) Assumptions:

	Farrow-Finish	Farrow-Feeder	Feeder Finish
Size of Operation (sows)	100	100	-
Pigs Born/Litter (# of litters/year)	9(2)	9(2)	-
Death Loss (%)	17	15	2
Culling Rate - Sows (%)	30	30	-
Boars (%)	40	40	-
Feeding Period (days)	182	63	119
Market Hogs (weanlings) sold	1494	1494	1500
Gilts retained	34	36	-
Hired Labour Hours	2000	1000	800
Investment	$4235/sow	$195/wean	$123/M hog

b) Profit/Loss Statement

	Farrow to finish dollars/sow	Farrow to weanling dollars/sow	Feeder to finish dollars/ market hog
Income:			
Market Hogs Sold (170 lb) /Weanling (45 lb)	1986	702	136
Sows	36	36	-
Boars	2	2	-
Total Income	**2024**	**740**	**136**
Expenses:			
Feed	837	307	35
Purchase Feeders	-	-	48
Boars	10	10	-
Hired Labour (at $7/hr)	140	70	3
Buildings and Equipment Repair & Maintenance (4%)	139	50	5
Utilities and Insurance	127	82	3
Veterinary and Medicine	51	20	2
Marketing and Transportation	58	2	4
Interest on Cash Costs	37	6	2
Total Cash Expenses	**1399**	**547**	**102**
Owner's Labour and Management	100	80	4
Depreciation	156	112	6
Interest on Investment	163	112	5
Total Non-Cash Expenses	**419**	**304**	**15**
Total Expenses	1818	851	117
Profit/Loss	206	111	19
Break Even Cost	$71/cwt m. hog	$54 /weanling	$69/cwt m. hog

C. COST OF PRODUCTION ESTIMATES

I. FARROW/FINISH PRODUCTION COSTS

Assumptions:

100 sows - 2 litters/year at 9 = 18 x 100	1800
Death Loss - 17% (1800) = 306	1494
Retain 34 Gilts	1460

Feeding Period - 182 days
Market 1460 hogs at 170 lbs dressed
Market 30 cull sows at 350 lbs live
Market 2 cull boars at 450 lbs live
5 boars required for enterprise

Cash Costs	Total Enterprise	Cost Per Sow	Cost Per Market Hog
1. Feed	83,706	837	57
2. Boars - 2 at $500	1,000	10	1
3. Hired Labour - 2000 hrs at $7	14,000	140	10
4. Buildings, Equipment, Machinery Maintenance and Repair $347,250 at 4%	13,890	139	10
5. Utilities and Insurance	12,721	127	9
6. Veterinary and Medicine	5,060	51	3
7. Marketing and transportation costs	5,808	58	4
8. Interest on cash costs	3,745	37	3
Total Cash Costs	139,930	1,399	97
Non Cash Costs			
9. Owners labour/management	10,000	100	8
10. Depreciation (bldg., equip.)	15,626	156	9
11. Interest on investment	16,303	163	11
Total Non Cash Costs	41,929	419	26
Total Cost	181,859	1,818	123

Total Income	Total Enterprise	Total Income Per Sow	Total Income Per Mkt Hog
1. 1460 mkt hogs at 170 lbs at $80/cwt	198,560	1,986	136
2. 30 sows at 250 lbs at $48/cwt dressed	3,600	36	2
3. 2 boars at 300 lbs at $35/cwt dressed	210	2	-
Total Income	202,370	2,024	138
Profit/Loss	20,511	206	15

Break Even on Total Cost: $71/cwt

A. DETAILED COST CALCULATIONS 100 SOW FARROW TO FINISH ENTERPRISE

1. Feed Requirements: Rations and Costs - Appendix I

a) Sow Gestation - 15% sow Ration - Home prepared
309 days at 5.17 lbs = .72 tonnes/sow at $116/tonne $84

b) Sow Lactation - 15% sow Ration
56 days at 12 1/2 lbs = .32 tonnes/sow at $116/tonne $ 37
$121
100 sows at $121 $12,100

c) Boar Ration - 15% sow ration, home prepared
365 days at 5 1/2 lbs /day =
.91 tonnes/boar at 116/tonne x 5 boars $528

d) Creep Feed Ration - 20% - Commercial Feed
Creep feed is fed to the weanlings from 0 to 22 lbs (4 weeks). Feed consumed is 11 lbs/pig
Average number of pigs on feed
(at this point death loss is assumed at 15%)
$\frac{1800 + 1530}{2}$ = 1665 pigs
1665 pigs at 11 lbs x $357/tonne $2,966

e) Starter Ration - 18.5%
Starter ration is fed from 4 weeks to 9 weeks or from 22 lbs to 45 lbs of weight. 63 lbs of feed per pig is consumed during the period.
1665 pigs at 63 lb x $317 $15,087

	Per Sow	Per Weanling
Total Feed Cost = $30,681	$307	$20

f) Grower and Finishing Ration - 16% - Home Prepared
Grower and finisher ration is fed from 9 weeks to 26 weeks or until the pig reaches full market weight of 215 lbs live (or 170 dressed). Feed conversion is 3.6:1 or 612 lbs/pig at $125/tonne = $35 per market hog

$\frac{1530 + 1500}{2}$ = 1515 at $35 $53,025
Total Feed Cost - Farrow to Finish
30,681 + 53,025 = $83,706

2. Boar Capacity

Age	Use up to
10-12 months	25 times per month
12 months and over	40 times per month

Replace two boars per year

3. Labour Requirements

100 sow farrow - finish - 1.5 man units
1500 finishing operation - .7 man units
100 sow weanling operation - .9 man units
Assume 2000 hours per man year

4. Buildings, Equipment, Machinery

See Appendix II

5. Utilities and Insurance

Insurance - Buildings/equipment/machinery .80/$100		
.80 x 3472		$2,778
Insurance - Livestock .45/$100		
Livestock Investment		
100 sows at $250	25,000	
5 boars at $500	2,500	
1460 feeders ÷ 3 x $100/finished hog	48,700	
	76,200	
.45 x 762		$ 343
Total Insurance		$ 3,121
Utilities Assume $800/mo		$ 9,600
Total Insurance and Utilities		$12,721

6. Veterinary and Medicine

Assume a normal herd health program
Medications, vaccinations - $20/sow and litters
Cost per hog in finishing operation - $2.00

100 sows at 20.00	$2,000
1530 feeders at 2.00	$3,373
Total Veterinary and Medicine	$5,060

7. Marketing and Transportation Costs

Marketing Levy 1.2% of market value	
Marketing 1460 + 30 + 2 = 1492 x $136 x 1.2% =	$2,435
Transportation 1492 x 170 lbs at $1.33/cwt ave. =	$3,373
Total Cost	$5,808

8. Interest on Cash Costs

Items #1 - 6 = 136,185
1 cycle every six months
Average investment per cycle = $68,093

$$68{,}093 \times 11\% \times \frac{6 \text{ months}}{12 \text{ months}} = \$\ 3745$$

9. Owners' Labour and Management

1000 hours at $10/hour = $10,000

10. Depreciation Buildings/equipment

$\frac{347,250 - 34,725}{20 \text{ years}}$ = $15,626

11. Interest on Investment

Livestock	76,200	From Item #5
Buildings/equipment	347,250	
	423,450	

$\frac{423,450 + 42,345}{2}$ x .07 = $16,303

II. FARROW/FEEDER PRODUCTION COSTS

Assumptions:

100 sows - 2 litters/year at 9 = 18 x 100	1800
Death Loss - 15% (1800) = 270	1530
Retain 36 Gilts	1494

Feeding Period - 0-4-9 weeks
Market 1494 hogs at 45 lbs live
Market 30 cull sows at 350 lbs live
Market 2 cull boars at 450 lbs live
5 boars required for enterprise

Total Cash Costs	Total Enterprise	Cost Per Sow	Cost Per Feeder Hog
1. Feed	30,681	307	21
2. Boars - 2 at $500	1,000	10	1
3. Hired labour - 1000 hrs at $7	7,000	70	5
4. Buildings equipment, machinery, maintenance and repair 249,000 at 2%	4,980	50	3
5. Utilities and insurance	8,181	82	5
6. Veterinary and medicine	2,000	20	1
7. Marketing and transportation costs	206	2	-
8. Interest on cash costs	602	6	-
Total Cash Costs	54,650	547	36
Non Cash Costs			
9. Owners' labour/management	8,000	80	5
10. Depreciation (bldg., equip.)	11,205	112	7
11. Interest on investment	11,199	112	8
Total Non Cash Costs	30,404	304	20
Total Cost	85,054	851	56

Total Income	Total Enterprise	Total Income Per Sow	Total Per Income Feeder Hog
1. 1494 feeder hogs at 45 lbs at $47 ea	70,218	702	47
2. 30 sows at 250 lbs at $48/cwt dressed	3,600	36	2
3/ 2 boars at 300 lbs at $35/cwt dressed	210	2	-
Total Income	74,028	740	49
Profit/Loss	-11,026	-111	-7

Breakeven: $54 per 45 lb. feeder hog.

A. DETAILED COST CALCULATIONS
100 SOW FARROW TO FEEDER (WEANLING) ENTERPRISE

1. Feed Requirements: Rations and Costs - Appendix I

a) Sow gestations, 15% sow ration, home prepared
309 days at 5.17 lbs = .72t/sow at $116/tonne $ 84

b) Sow lactation - 15% sow ration
56 days at 12 1/2 lbs = .32t/sow lbs at $116/tonne $ 37
$121
100 sows at $121 $12,100

c) Boar ration, 15% sow ration, home prepared
365 days at 5 1/2 lbs /day = .91t/sow at $116/tonne
x 5 boars $ 528

d) Creep feed ration, 20%, commercial feed
Creep feed is fed to the weanling from 0 to 22 lbs (4 weeks). Feed consumed is 11 lbs/pig.
Average number of pigs on feed
(at this point death loss is assumed at 15%)
$\frac{1800 + 1530}{2}$ = 1665 pigs
1665 pigs at 11 lbs x $357/tonne $2,966

e) Starter ration, 18.5%, 35 days, 5 weeks
Starter ration is fed from 4 weeks to 9 weeks or from 22 lbs to 45 lbs of weight. 63 lbs of feed per pig is consumed during the period.
1665 pigs at 63 lbs/pig x $317/tonne $15,087

	Per Sow	Per Weanling
Total Feed Cost = $30,681	$307	$21

2. Boar Capacity

Age	Use up to
10-12 months	25 times per month
12 months and over	40 times per month

Replace two boars per year

3. Labour Requirements

100 sow Farrow/finish - 1.5 man units
1500 finishing operation - .7 man units
100 sow weanling operation - .9 man units
Assume 2000 hours per man year

4. Buildings Equipment Machinery

See Appendix II

5. Utilities and Insurance

Insurance - buildings/equipment/machinery .80/$100		
.80 x 2490 =		$1,992
Insurance - livestock .45/$100		
Livestock investment		
100 sows at $250	25,000	
5 boars at $500	2,500	
1530 feeders ÷ 5 x $47/weanling hog	14,382	
	$41,882	
.45 x 419 =		189
Total Insurance		$ 2,181
Utilities assume $500/mo		$ 6,000
Total Insurance and Utilities		$ 8,181

6. Veterinary and Medicine

Assume a normal herd health program	
Medications, vaccinations - $20/sow and litters	$2,000

7. Marketing and Transportation Costs

Feeders - usually sold from farm	
Marketing cull sows/boars = $4,560 at 1.2% =	$ 54
Transportation= $1.33/cwt x ((30 x 350) + (2 x 450)) =	$152
Total marketing and transportation costs	$206

8. Interest on Cash Costs

Items #1 - 6 = $54,697	
1 cycle each nine weeks	
5 cycles per year	
Investment per cycle $\frac{10,939}{2}$ x 11%	$602

9. Owners' Labour and Management

800 hours at $10/hour =	$8,000

10. Depreciation Buildings/equipment

$\frac{249,000 - 24,900}{20 \text{ years}}$ =	$11,205

11. Interest on Investment

Livestock	41,882	From Item #5
Buildings/equipment	249,000	
	290,882	
$\frac{290,882 + 29,088}{2}$ x .07 =		$11,199

III. FEEDER HOG PRODUCTION COSTS

Assumptions:

Purchase 1530 45 lb feeders	1530
Death loss - 2% (1530) = 30	1500
Barn to house: 600 hogs	
Feeding period - 17 weeks - 119 days	
Market 1500 hogs at 170 lbs dressed	

Cash Costs	Total Enterprise	Cost Per Market Hog
1. Feed	53,025	35
2. Purchase 1530 feeders at $47 each	71,910	48
3. Hired labour - 800 hrs at $7	5,600	3
4. Buildings, equipment, machinery, maintenance and repair 184,750 at 4%	7,390	5
5. Utilities and insurance	4,105	3
6. Veterinary and medicine	3,372	2
7. Marketing and transportation costs	5,840	4
8. Interest on cash costs	2,773	2
Total Cash Costs	154,015	102
Non Cash Costs		
9. Owners' labour/management	6,000	4
10. Depreciation (bldg., equip.)	8,314	6
11. Interest on investment	7,113	5
Total Non Cash Costs	21,427	15
Total Cost	175,146	117
Total Income		
1500 market hogs at 170 lbs x $80/cwt	204,000	136
Profit/Loss	28,854	19

Break Even on Total Cost: $69/cwt

A. DETAILED COST CALCULATIONS FEEDER ENTERPRISE

1. Feed Requirements: Rations and Costs - Appendix 1

   a) Grower and finishing ration, 16%, home prepared
   Grower and finisher rations is fed from 9 weeks to 26 weeks or until the pig reaches full market weight of 215 lbs live or 170 lbs dressed. Feed conversion is 3.6:1 or 612 lbs/pig during the feeding period.

$$170 \text{ lbs/pig} \times 3.60 \times \$125/\text{tonne} \times \frac{1 \text{ tonne}}{2{,}205 \text{ lb.}} = \$35.00/\text{pig}$$

$$\frac{1530 + 1500}{2} = 1515 \text{ pigs at } 35.00 \qquad \$53{,}025$$

2. Purchase 1530 feeders at $47 each delivered $71,910

3. Labour Requirements

100 sow Farrow/finish - 1.5 man units
1500 finishing operation - .7 man units
100 sow weanling operation - .9 man units
Assume 2000 hours per man year

4. Buildings, Equipment, Machinery

See Appendix II

5. Utilities and Insurance

Insurance - buildings, equipment, machinery .80/$100	
.80 x 1847 =	$1,478
Insurance - livestock .45/$100	
Livestock investment	
1515 feeders ÷ 3 x $100/finished hog = 50,500	
.45 x 505 =	$ 227
Total Insurance	$1,705
Utilities assume $200/month	$2,400
Total Insurance and Utilities	$4,105

6. Veterinary and Medicine

Cost per hog in finishing operation $2.00	$3,060

7. Marketing and Transportation Costs

Marketing levy 1.2% of market value	
Marketing 1500 x $136 x 1.2%	$2,448
Transportation 1500 x 170 lbs at $1.33/cwt ave.	$3,392
Total Cost	$5,840

8. Interest on Cash Costs

Items #1 - 6 = 151,242
1 cycle every 17 weeks
Investment per cycle = $\frac{\$151,242}{3}$ = $50,414

$\frac{50,414}{2}$ x 11% = $2,773

9. Owners' Labour and Management

600 hours at $10/hour = $6,000

10. Depreciation Buildings/equipment

$\frac{184,750 - 18,475}{20 \text{ years}}$ = $8,314

11. Interest on Investment

Livestock Included in Item #8 - Interest calculated as cash cost on purchase of feeders
Buildings/equipment 184,750

$$\frac{184,750 + 18,475}{2} \times .07 = \$7,113$$

Appendix I

Rations: Components and Costs

i) Gestation and lactating sow ration - 15%

	Ration	Cost Per 100 lbs
Barley (11%) at 2.5¢/lb	66 lbs	1.65
Wheat (12.5%) at 3.5¢/lb	20 lbs	.70
Sow supplement (40%) at .18¢/lb	14 lbs	2.52
	100 lbs	4.87

Cost per tonne 4.87 x 22.05 = $107.38
Home preparation - 8% less efficient
Real cost per tonne = $115.97

ii) Grower and Finisher - 16%

	Ration	Cost Per 100 lbs
Barley (11%) at 2.5¢/lb	59 lbs	1.48
Wheat (12.5%) at 3.5¢/lb	25 lbs	.88
Hog supplement (40%) at 18¢/lb	16 lbs	2.88
	100 lbs	$5.24

Cost per tonne - $5.24 x 22.05 = $115.54
Home preparation - 8% less efficient
Real cost per tonne = $124.78

Boar, creep feed and starter ration are commercially prepared.

Note: The analysis assumes that sow ration and grower/finisher rations are home prepared. It is assumed that home prepared feed will require 8% more feed per hog due to waste. The costs are therefore increased by 8%.

Appendix II: Budgeting Information

SWINE HOUSING - SIZING AND MANAGEMENT

The trend in swine production is toward totally enclosed, well-insulated and mechanically ventilated buildings. Pigs have specific temperature and space requirements depending on their age. For that reason, buildings are usually partitioned into rooms where each phase of production can be provided with the proper environment.

With larger operations it is feasible to split the barn into several distinct areas that best suit the requirements of the pigs housed in them. These areas are:

1. farrowing
2. weanling (nursery)
3. grower/finisher
4. breeding-gestation
5. service area

For smaller operations, some of these functions may have to be combined. In some larger operations, several of these areas may be further subdivided. There may be multiple farrowing and nursery rooms, separate areas for growers and finishers, or separate rooms for breeding and gestation.

For a Farrow/finish operation, these components must all be combined into a single production system with proper provisions for handling animals, feed, ventilation, manure and people.

The sizing of hog production facilities is based on a number of assumptions that must be made concerning the performance of the animals in the barn. These basically involve the breeding performance of the sow herd and the growth performance of the animals from farrowing to finishing.

Hog barns are often commonly referred to as being for a specific number of sows. However, the production from a given number of sows can vary greatly, depending on the number of litters per year and the pigs weaned per litter.

Pigs Produced Per Year By 100 Active Breeding Sows

Pigs Weaned Per Litter	Litters/Year 1.6	1.8	2.0	2.2	2.4	2.6
6	960	1080	1200	1320	1440	1560
7	1120	1260	1400	1540	1680	1820
8	1280	1440	1600	1760	1920	2080
9	1440	1620	1800	1980	2160	2340
10	1600	1800	2000	2200	2400	2600

It is preferable to start with a given number of farrowing crates or desired farrowings per week and then size the sow housing and weanling to feeder barns based on the expected production from these crates or farrowings per week and the estimated growth performance of the animals weaned.

The sizing requirements for the breeding-gestation and weanling to feeder areas will likely tend to change over the life of a hog operation. As breeding performance improves, it should be possible to reduce the size of the sow herd to produce a given number of farrowings per week and at the same time, these farrowings should result in more pigs weaned per year. This will tend to overcrowd the weanling to finisher end of the barn unless growth performance is also improving to reduce the days to market so that the cycles per year in the grower/finisher area can be increased.

Information on building layouts and operation may be obtained from the following agricultural engineers:

Northwest
Edgar Harder
105 Provincial Office Building
North Battleford
S9A 1E9
Telephone: 446-7478

Northeast
Bill Henley
Provincial Office Bldg.
Box 1480
Tisdale
S0E 1T0
Telephone: 873-2693

West Central
Ken McKnight
Circle 8 Building
3130 8th Street East
Saskatoon
S7K 2H6
Telephone: 933-5322

East Central
Brian Campbell
A.G. Kuziak Building
72 Smith Street East
Yorkton
S3N 2Y4
Telephone: 786-1505

Southwest
Donn Farrer
E.I. Wood Building
350 Cheadle Street West
Swift Current
S9H 4G3
Telephone: 773-2866

Southeast
Randy Vopni
Weyburn Square
110 Souris Avenue
Weyburn
S4H 2Z9
Telephone: 842-4607

Swine Housing and Equipment Costs
Farrow/finish 4 litters Per Week

Description	Cost
1. Breeding Gestation Unit CPS Plan No. M-3236	
- 64 sow stalls, 8 sow pens, 5 boar/breeding pens	
- Manure: 2'x 2' deep x 6' wide, stop and flow gutter	
- Cross ventilation through centre air inlet from attic	
COSTS	$
36'x 81' insulated shell including site preparation	32,000
Concrete floor with gutters	7,250
Slats	4,250
64 sow stalls, with concrete feed trough	7,250
Pen partitioning, posts, brackets	4,250
Exhausts fans with hoods and controls	2,500
Centre air inlet	1,500
Plumbing, 13 nipple drinkers	1,000
Wiring	2,500
Total Cost	62,500
Cost per sow	625
Cost per square foot	21.43

2. Farrow/Weanling Unit CPS Plan No. M-3303

- 3 farrowing rooms with 8 crates per room designed for 4 farrowings per week, weaning at 4 weeks of age
- 3 weanling rooms with 8 pens each for pigs from 4 to 9 weeks of age
- Both farrowing and weanling rooms can operate all in/all out
- Manure: 2' deep, stop and flow gutters

Costs	
46' x 70' insulated shell including site preparation	44,000
Concrete floor with 6 gutters and drain tiles	12,000
6 interior wall partitions with 9 doors	6,000
Slatted floors for farrowing and weanling pens	7,000
Farrowing crates, pens, creep feeders, heat lamps	8,000
Weanling pens, feeders	8,000
Exhaust fans, hoods, controls, room and hall heaters	9,000
Wiring	3,500
Plumbing	2,500
Total Cost	100,000
Cost per sow	1,000
Cost per square foot	31.06

Note: One room farrowing/one room weanling would result in a savings of $11,500

Saving on interior partitions and floor space	8,000
Savings on ventilation and heating systems	3,500
Total Savings	11,500

3. Finishing Unit CPS Plan No. 3428

- Barn to house 600 hogs in 16 - 6' x 16' grower pens, 16-8' x 16' finishing pens, with 7-5' x 12' sick or tail ender pens
- Partially slatted floors, with 2' x 6' stop and flow gutters
- Cross ventilation through centre air inlet from attic

Costs	
128' x 36' insulated shell including site preparation	48,500
Concrete floors with gutters	12,000
Slats	6,500
Pen partitions, gates, posts	9,750
21 self feeders	5,000
147' centre air inlet	3,000
Exhaust fans, hoods, and controls	7,000
Plumbing including 69 nipple drinkers	3,500
Wiring	3,000
Total Cost	98,250
Cost per sow	983
Cost per square foot	21.32
Cost per pig housed	164

Note: The 21 self feeders would be filled manually with feed carts

4. Miscellaneous Items

Feed:	15,000 bushel storage at $1.00/bushel	15,000
	Feed room 36' x 16' office	14,500
	Electric mixer-grinder	22,500
	2-10 ton bins, augers, feed carts	8,500
Manure:	Earthen Manure storage 90,000 cu ft	7,000
	Liquid manure pump, 3000 gallon spreader	11,000
	Sump, transfer pump, wiring	1,750
Water:	Well, 150' deep with submersible pump	4,250
Hydro:	Service from road to barn	2,000
Total Cost		86,500
Cost per sow		865

5. Summary of Investment Costs

a) Buildings and Equipment

	Total	Cost per sow	Cost per market hog
Breeding/gestation	62,500	625	38
Farrow/weanling	100,000	1000	61
Finishing	98,250	983	59
Miscellaneous	86,500	865	52
	347,250	3,473	210

b) Livestock

	Sows	Boars	Weanlings	Feeders	Total
Farrow/finish	25,000	2,500	---	66,000	93,500
Farrow/weanling	25,000	2,500	17,919	---	45,419
Finishing	---	---	---	66,000	66,000

c) Total Investment: Buildings, Equipment and Livestock

Farrow/finish - 440,750 or $4,407 per sow or $267/mkt hog
Farrow/weanling - 294,419 or $2,944 per sow or $175/mkt hog
Finishing - 250,750 or $152 per market hog

Appendix III

Market Prices - Hogs - 1982 - 1987

(all prices in $/cwt, dressed, index 100)
Basis Saskatoon

QTR	Market Price	Support Level (SHARP)
87-2	80.65	69.24
87-1	70.26	69.40
86-4	85.09	71.58
86-3	93.85	75.48
86-2	69.82	75.42
86-1	66.99	76.31
85-4	68.15	78.48
85-3	64.42	80.96
85-2	60.49	81.21
85-1	69.16	80.68
84-4	68.54	79.64
84-3	74.77	79.36
84-2	69.40	78.02
84-1	64.58	76.01
83-4	59.53	74.07
83-3	67.53	71.75
83-2	67.89	73.85
83-1	74.43	79.59
82-4	80.12	77.02
82-3	92.49	79.31
82-2	85.10	79.40
82-1	68.17	78.49